ceedure gives the maximum possible change in the period. The last two velocities have been found to be free from any systematic error by means of a check plate of the sky obtained at the same time. A spectrogram of *Pollux* obtained at the time the first four plates were secured is the only available check upon them. If we assume the constant velocity which has been found for this star by Lick Observatory and others, a systematic correction of —2.20 km/sec is indicated for the first four velocities of *Capella*. As the residuals, when properly changed to correspond to this systematic correction, are then all negative (including that of γ 10677 also), a simpler and more reasonable conclusion would be that the velocity of the center of mass of the system had changed. A decrease of 0.9 km/sec in this element would reduce the sum of the residuals to zero and the correction to the period would then be negligible.

In conclusion it may be said that the maximum correction to the period that our velocities will permit is $+ 0^d.017$. The evidence presented above for a correction to the center of mass velocity to explain the residuals is preferred, however, by the writer. In taking the middle course and ascribing the residuals partly to an incorrect period and partly to a change in the center of mass velocity, it seems a fair conclusion to say that the period as originally determined is certainly not in error by $0^d.01$.

The velocities for the secondary are not considered accurate. If taken as they stand the ratio of the masses comes out $M_1/M_2 = 1.2$.
If the systematic correction called attention to above is applied $M_1/M_2 = 1.3$. To follow the middle course $M_1/M_2 = 1.26$, as given in the Lick Observatory elements, would satisfy these later observations extremely well.

R. F. SANFORD.

1922, May 8.

THE PARALLAX OF α TAURI

Many parallax determinations have been published for this star. The discrepancies between the results are very considerable, however, and it was therefore placed on the parallax program of the 60-inch reflector. From 16 exposures I have

derived: π rel. $= + 0''.063 \mp 0''.012$. The available results are:

	$''$	$''$
Jewdokimow	+0.040	∓ 0.038
Flint	+0.020	∓ 0.058
Yale	+0.109	∓ 0.014
Groningen	+0.079	∓ 0.029
Groningen	—0.005	∓ 0.020
Yerkes	+0.047	∓ 0.010
McCormick	+0.035	∓ 0.008
Mt. Wilson Spect.	+0.096	∓ 0.019
Mt. Wilson Trig.	+0.063	∓ 0.012

Reducing these values to absolute parallaxes and correcting them to the system described in *Mt. Wilson Contribution* No. 189, we find as the best value of the parallax: $\pi = + \mathbf{0''.062}$, giving an absolute magnitude of 0.0, and for the faint physical companion an absolute magnitude of + 12.5.

A. VAN MAANEN.

DISAPPEARANCE OF BRIGHT LINES FROM THE SPECTRUM OF H. D. 9105

H. D. 9105, R. A. 1900, $1^h 24.6^m$; Dec. 1900, $+ 62°51'$; Mag. 7.5; Spectrum B0P

This spectrum, which was discovered at the Harvard College Observatory to contain bright lines, appears to have undergone a decided change, as several photographs recently secured at the Mt. Wilson Observatory show only dark lines. A remark in the Henry Draper catalogue states, "The lines $H\beta$, $H\gamma$, and $H\delta$ are bright." Miss Cannon has kindly sent the following additional information:

"I have looked up this spectrum on nine photographs taken between 1891 and 1914. It appears to change in a manner similar to η *Centauri,* but owing to the small dispersion of the photographs which were all taken with the 8-inch telescope, a detailed study is difficult. The emission lines are not very strong at any time, but are certainly seen on several plates. Faint emission is seen at $H\beta$, $H\gamma$, and $H\delta$ on September 21, 1891, and September 9, 1913. On several plates, $H\beta$ is a narrow bright line and bright lines not due to hydrogen are present. Numerous dark lines not characteristic of Class B are seen, especially between $H\beta$ and $H\gamma$. I suspect that the star is a spectroscopic binary, for the spectrum seems to be composite and variable."

Our attention was first called to this spectrum by the failure